

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

## **NOTICE OF ACCEPTANCE (NOA)**

Polyglass USA, Inc. 150 Lyon Drive Fernley, NV 89408

#### **SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

### **DESCRIPTION:** Polyglass Modified Bitumen Roof System Over Concrete Decks

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This renews NOA# 08-0827.16 and consists of pages 1 through 31. The submitted documentation was reviewed by Alex Tigera.



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## ROOFING ASSEMBLY APPROVAL

<u>Category:</u> Roofing

Sub-Category: Modified Bitumen

MaterialsSBS/APPDeck Type:ConcreteMaximum Design Pressure:-622.5 psf

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

|                    |                     | Test                  | Product   |
|--------------------|---------------------|-----------------------|---|
| <b>Product</b>     | <b>Dimensions</b>   | <b>Specification</b>  | <b>Description</b>  |
| Polyflex           | 32' 10" x 3' 3-3/8" | ASTM D 6222           | Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.   |
| Polyflex G         | 32' 10" x 3' 3-3/8" | ASTM D 6222           | Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface.  |
| Polyflex G FR      | 32' 10" x 3' 3-3/8" | ASTM D 6222           | Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface and fire retardant chemistry.   |
| Polybond           | 32' 10" x 3' 3-3/8" | ASTM D 6222           | Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a smooth or sanded top surface.   |
| Polybond G         | 32' 10" x 3' 3-3/8" | ASTM D 6222<br>Type I | Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface.  |
| Elastoflex S6      | 32' 10" x 3' 3-3/8" | ASTM D 6164           | Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a polyethylene or sanded top surface.               |
| Elastoflex S6 G    | 32' 10" x 3' 3-3/8" | ASTM D 6164           | Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface.                              |
| Elastoflex S6 G FR | 32' 10" x 3' 3-3/8" | ASTM D 6164           | Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface and fire retardant chemistry. |
| Elastoshield TSG   | 32' 10" x 3' 3-3/8" | ASTM D 6164           | Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface.                              |



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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

| <b>Product</b>            | <b>Dimensions</b>                                   | Test<br>Specification  | Product Description  |
|---------------------------|---|------------------------|--|
| Elastoshield TSG FR       | 32' 10" x 3' 3-3/8"                                 | ASTM D 6164            | Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface and fire retardant chemistry.                                    |
| Elastoflex V              | 32' 10" x 3' 3-3/8"                                 | ASTM D 6163            | Torch, hot asphalt or cold adhesive applied, fiberglass reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a sanded top surface. Also available in a thicker version listed as Elastoflex V 2.5. |
| Polyfresko Mop            | 32' 10" x 3' 3-3/8"                                 | ASTM D 6164            | Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface.   |
| Polyfresko Mop FR         | 32' 10" x 3' 3-3/8"                                 | ASTM D 6164            | Torch, hot asphalt or cold adhesive applied, polyester reinforced, SBS modified bitumen membrane with a burn off polyethylene or sanded back face and a granule top surface and fire retardant chemistry.                                    |
| Polyfresko Torch          | 32' 10" x 3' 3-3/8"                                 | ASTM D 6222            | Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface.   |
| Polyfresko Torch FR       | 32' 10" x 3' 3-3/8"                                 | ASTM D 6222            | Torch applied, polyester reinforced, APP modified bitumen membrane with a burn off polyethylene back face and a granule top surface and fire retardant chemistry.  |
| Elastobase                | 65' 2" x 3' 3-3/8"                                  | ASTM D 6163<br>Type I  | SBS modified asphalt coated fiberglass reinforced base sheet.  |
| Elastobase P              | 65' 2" x 3' 3-3/8"                                  | ASTM D 6164            | SBS modified asphalt coated polyester reinforced base sheet.   |
| Polyglass Base            | 65' 8" x 3' 3-3/8"                                  | ASTM D 6509,<br>Type I | APP modified bitumen, fiberglass reinforced, base/ply sheet.   |
| Elastoflex SA V           | 32' 6" x 3' 3- <sup>3</sup> / <sub>8</sub> "        | ASTM D 6163,<br>Type I | Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.  |
| Cold Process<br>Adhesive  | 1, 3, 5, 50, 55 gal. or tube                        | ASTM D3019<br>Type III | A fibered cold process adhesive for use with roll or BUR roofing.  |
| PG100 Asphalt<br>Primer   | 1, 3, 5, 50, 55 gal,<br>tube or 17 oz. spray<br>can | ASTM D41               | A penetrating solution of solvent and a blend of selected asphalts used to promote adhesion.   |
| PG350 Mod Bit<br>Adhesive | 1, 3, 5, 50, 55 gal. or tube                        | ASTM D3019<br>Type III | A fibered rubberized adhesive designed for use with modified bitumen membranes.  |



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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

|  |                              | Test                     | Product   |
|--|------------------------------|--------------------------|---|
| <b>Product</b>                                     | <b>Dimensions</b>            | <b>Specification</b>     | <u>Description</u>  |
| PG400 Plastic Roof<br>Cement                       | 1, 3, 5, 50, 55 gal. or tube | ASTM D4586<br>ASTM D3409 | A thick, fibered, rubberized flashing cement for use in dry or damp conditions.       |
| PG425 Wet/Dry Roof<br>Cement                       | 1, 3, 5, 50, 55 gal. or tube | ASTM D4586<br>ASTM D3409 | A thick, fibered, rubberized flashing cement for use in dry or damp conditions.       |
| PG450 Flashing<br>Cement                           | 1, 3, 5, 50, 55 gal. or tube | ASTM D4586               | A thick, fibered, rubberized flashing cement.   |
| PG500 MB Flashing<br>Cement                        | 1, 3, 5, 50, 55 gal. or tube | ASTM D4586               | A thick, fibered, rubberized flashing cement for use with modified bitumen membranes. |
| Polyplus 35 Premium<br>Mod Bit Adhesive            | 1, 3, 5, 50, 55 gal. or tube | ASTM D3019<br>Type III   | A fibered rubberized adhesive designed for use with modified bitumen membranes.       |
| Polyplus 45 Premium Flashing Cement                | 1, 3, 5, 50, 55 gal. or tube | ASTM D4586               | A thick, fibered, rubberized flashing cement.   |
| Polyplus 50 Premium MB Flashing Cement             | 1, 3, 5, 50, 55 gal. or tube | ASTM D4586               | A thick, fibered, rubberized flashing cement for use with modified bitumen membranes. |
| Polyplus 55 Premium<br>Modified Flashing<br>Cement | 1, 3, 5, 50, 55 gal. or tube | ASTM D4586               | A mastic compound for use as a roof flashing adhesive.                                |



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# **APPROVED INSULATIONS:**

## TABLE 2

| <u>Product Name</u>                                | <b>Product Description</b>                     | <u>Manufacturer</u><br>(With Current NOA) |
|--|--|---|
| POLYTHERM  | Polyisocyanurate foam insulation               | Polyglass USA, Inc.                       |
| POLYTHERM Composite                                | Polyisocyanurate/perlite composite insulation. | Polyglass USA, Inc.                       |
| ACFoam II, ACFoam III                              | Polyisocyanurate foam insulation               | Atlas Roofing Corporation                 |
| High Density Wood Fiberboard                       | Wood fiber insulation board                    | Generic                                   |
| Perlite Insulation                                 | Perlite insulation board                       | Generic                                   |
| DensDeck or DensDeck Prime                         | Gypsum insulation board                        | Georgia-Pacific                           |
| ENRGY 3  | Polyisocyanurate foam insulation               | Johns Manville Corp.                      |
| FescoBoard   | Expanded mineral fiber                         | Johns Manville Corp.                      |
| Structodek High Density Fiberboard Roof Insulation | Wood fiber board                               | Blue Ridge Fiberboard, Inc.               |
| SECUROCK Gypsum-Fiber Roof Board                   | Fiber reinforced Coverboard                    | <b>USG</b> Corporation                    |
| H-Shield   | Polyisocyanurate foam insulation               | Hunter Panels, LLC                        |
| H-Shield CG  | Polyisocyanurate/perlite composite insulation  | Hunter Panels, LLC                        |
| Multi-Max FA-3                                     | Polyisocyanurate foam insulation               | RMax, Inc.                                |



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# **APPROVED FASTENERS:**

# TABLE 3

| <u>Fastener</u><br><u>Number</u> | <u>Product</u><br><u>Name</u>          | Product Description                                     | <b>Dimensions</b>                            | <u>Manufacturer</u><br>(With Current NOA) |
|----------------------------------|--|---|--|---|
| 1.                               | Polygrip Fasteners #14 & #15           | Insulation fastener for wood, steel and concrete decks  |  | Polyglass USA, Inc.                       |
| 2.                               | Polygrip Hex Plate                     | Galvalume hex stress plate.                             | 2 7/8" x<br>3- <sup>1</sup> / <sub>4</sub> " | Polyglass USA, Inc.                       |
| 3.                               | Dekfast Fasteners #14 & #15 HS         | Insulation fastener for wood, steel and concrete decks  |  | SFS Intec, Inc.                           |
| 4.                               | Dekfast Galvalume Steel<br>Hex Plate   | Galvalume hex stress plate.                             | 2 7/8" x<br>3 1/4"                           | SFS Intec, Inc.                           |
| 5.                               | #14 & #15 Roofgrip<br>Fasteners        | Insulation fastener for wood, steel and concrete decks. |  | OMG, Inc.                                 |
| 6.                               | 3 in. Round Metal Plate                | Galvalume stress plate.                                 | 3" round                                     | OMG, Inc.                                 |
| 7.                               | Flat Bottom Metal Plate                | Galvalume stress plate.                                 | 3" square                                    | OMG, Inc.                                 |
| 8.                               | Dekfast Isofast IF-2.375-<br>AT Plates | Galvalume AZ55 steel plate                              | 2.37" round                                  | SFS Intec, Inc.                           |
| 9.                               | Trufast #14 HD Fastener                | Insulation fastener for wood, steel and concrete decks  |  | Altenloh, Brinck & Co.<br>U.S., Inc.      |
| 10.                              | Trufast 3" Metal Insulation Plates     | Round Galvalume steel plate                             | 3" round                                     | Altenloh, Brinck & Co.<br>U.S., Inc.      |



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# **APPROVED SURFACING:**

# TABLE 4

| Number | <u>Product</u><br><u>Name</u>                                  | <u>Product</u><br><u>Description</u>  | Application<br>Rate   | <b>Specification</b>   | <u>Manufacturer</u>    |
|--------|--|---|-----------------------|------------------------|------------------------|
| 1.     | PG200 Non-Fibered<br>Roof Coating                              | A non fibered asphaltic coating used to add life and rejuvenate existing BUR roofing substrates.  | 1½-2 gal/sq           | TAS 140                | Polyglass USA,<br>Inc. |
| 2.     | PG300 Fibered Roof<br>Coating                                  | An asphalt cutback fibered roof coating. May be applied by brush or spray equipment to rejuvenate aged BUR                                | 1½-2 gal/sq           | ASTM D4479             | Polyglass USA,<br>Inc. |
| 3.     | PG600 Non-Fibered<br>Aluminum Roof<br>Coating                  | Non-fibered aluminum roof coating.  | ½-1 gal/sq            | ASTM D2824<br>Type I   | Polyglass USA,<br>Inc. |
| 4.     | PG650 Fibered<br>Aluminum Roof<br>Coating                      | Fibered aluminum roof coating.  | 1½-2 gal/sq           | ASTM D2824<br>Type III | Polyglass USA,<br>Inc. |
| 5.     | PG700 White<br>Reflective Roof<br>Coating                      | A premium white elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating. | 1-1½ gal/sq           | ASTM D6083             | Polyglass USA,<br>Inc. |
| 6.     | PG800 Non-Fibered<br>Asphalt Emulsion Roof<br>Coating          | An asphalt base, non-fibered clay emulsion  | 3 gal/sq in two coats | ASTM D1227             | Polyglass USA,<br>Inc. |
| 7.     | PG850 Fibered Asphalt<br>Emulsion Roof Coating                 | An asphalt base, fibered clay emulsion  | 3 gal/sq in two coats | ASTM D1227             | Polyglass USA, Inc.    |
| 8.     | Polyplus 65 Premium<br>Fibered Aluminum<br>Roof Coating        | Fibered aluminum roof coating.  | 1½-2 gal/sq           | ASTM D2824<br>Type III | Polyglass USA,<br>Inc. |
| 9.     | Polyplus 60 Premium<br>Non-Fibered<br>Aluminum Roof<br>Coating | Non-fibered aluminum roof coating.  | ½-1 gal/sq            | ASTM D2824<br>Type I   | Polyglass USA,<br>Inc. |
| 10.    | Polybrite 70 White<br>Elastomeric Roof<br>Coating              | A premium white elastomeric acrylic based roof coating (water-based). A polyester fabric may be used for reinforcement with this coating. | 1-1½ gal/sq           | ASTM D6083             | Polyglass USA,<br>Inc. |
| 11.    | Gravel   | To be installed in a flood coat of approved asphalt at 60 lbs/sq  | 400 lbs/sq            | N/A                    | Generic                |



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# **APPROVED SURFACING:**

# TABLE 4

| <u>Number</u>  | <u>Product</u><br><u>Name</u> | <u>Product</u><br><u>Description</u>                             | Application<br>Rate | <b>Specification</b> | <b>Manufacturer</b> |
|----------------|-------------------------------|--|---------------------|----------------------|---------------------|
| 12. Slag       | g                             | To be installed in a flood coat of approved asphalt at 60 lbs/sq | 300 lbs/sq          | N/A                  | Generic             |
| EVIDENCE S     | SUBMITTED:                    |  |                     |                      |                     |
| <b>Test</b>    | Agency                        | <b>Test Name/Report</b>  | Repo                | rt No.               | <b>Date</b>         |
| Factory Mutua  | l Research                    | 4470   | J.I. 2W7            | 'A7.AM               | 08/04/94            |
| Corporation    |                               | 4470   | J.I. 30             | 01334                | 02/15/00            |
| 1              |                               | 4470   | J.I. 30             | 00857                | 01/12/00            |
|                |                               | 4470   | J.I. 30             | 04091                | 01/12/00            |
| Underwriters I | Laboratory                    | TAS 114  | 00NK                | 20869                | 06/08/00            |
| Trinity   ERD  |                               | TAS 114  | 11752.09.99-1       |                      | 02/08/00            |
|                |                               | TAS 114  | 11772.0             | 08.00-1              | 08/14/00            |
|                |                               | TAS 114  | 11757.              | 12.00-1              | 12/01/00            |
|                |                               | TAS 114  | 11757.0             | 04.01-1              | 04/27/01            |
|                |                               | TAS 114  | 11776               | .06.02               | 06/13/02            |
|                |                               | TAS 114  | 11758               | .08.03               | 08/11/03            |
|                |                               | TAS 114  | 020843.             | 02.05-1              | 02/10/05            |
|                |                               | TAS 117(B)-ASTM D6862  | C8500S              | C.11.07              | 11/30/07            |
|                |                               | ASTM D 6164 / D 6222   | P10490.1            | 10.08-R1             | 10.03.08            |
|                |                               | TAS 114 Appendix D   | P13770              | 0.09.09              | 09/10/09            |
|                |                               | ASTM D6222   | P37590.             |                      | 07.01.13            |
|                |                               | ASTM D6222   | P37590.03           | 3.13-5-R1            | 07.01.13            |
|                |                               | ASTM D6509   | P37590.03           | 3.13-1-R1            | 06.26.13            |
|                |                               | ASTM D6164   | P37590.0            |                      | 03.06.13            |
|                |                               | ASTM D6164   | P37590.             |                      | 07.02.13            |
|                |                               | ASTM D6163   | P37590.03           | 3.13-2-R1            | 07.01.13            |
| PRI Asphalt Te | echnologies                   | ASTM D6222   | PUSA-0              | 62-02-01             | 12/04/07            |
|                |                               | ASTM D6163   | PUSA-0              | 64-02-02             | 02/27/08            |



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#### **APPROVED ASSEMBLIES:**

**Deck Type 3I:** Concrete Decks, Insulated

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(1): All layers of insulation adhered with approved asphalt. Base sheet and membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer                                      | <u>Insulation Fasteners</u><br>( <u>Table 3)</u> | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
|--|--|--|
| ENRGY 3, ACFoam-II, POLYTHERM, H-Shield Minimum 1.5" thick | N/A  | N/A  |
| <b>Top Insulation Layer</b>                                | Insulation Fasteners<br>(Table 3)                | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
| Dens Deck<br>Minimum ¼" thick                              | N/A  | N/A  |
| Approved High Density Wood Fiberboard<br>Minimum ½" thick  | N/A  | N/A  |
| FescoBoard<br>Minimum ¾" thick                             | N/A  | N/A  |

Note: Concrete deck shall be primed with PG100 Asphalt Primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Elastobase adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Polyflex, Polybond torch

applied or one or more plies of Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One or more plies of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch

FR, Polybond, Polybond G, torch applied. Or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.



NOA No.: 13-0416.04 Expiration Date: 07/13/18 Approval Date: 07/18/13 Page 9 of 31 **Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -290 psf (for Fesco Board) (See General Limitation #9)

-557.5 psf (for High Density Wood Fiberboard) (See General Limitation #9)

-622.5 psf (for Dens Deck) (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(2): All layers of insulation adhered with approved asphalt. Base sheet and membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional)                              | Insulation Fasteners (Table 3) | Fastener<br>Density/ft <sup>2</sup>              |
|---|--------------------------------|--|
| ENRGY 3, ACFoam-II, POLYTHERM, H-Shield<br>Minimum 1.5" thick | N/A                            | N/A  |
| Top Insulation Layer  | Insulation Fasteners (Table 3) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
| Dens Deck<br>Minimum 1/4" thick                               | N/A                            | N/A  |
| Approved High Density Wood Fiberboard<br>Minimum ½" thick     | N/A                            | N/A  |
| FescoBoard<br>Minimum 3/4" thick                              | N/A                            | N/A  |

Note: Concrete deck shall be primed with PG100 Asphalt Primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Elastobase adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Polyflex, Polybond torch

applied or one or more plies of Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One or more plies of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch

FR, Polybond, Polybond G, torch applied. Or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.



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# **Maximum Design**

**Pressure:** -277.5 psf (for Fesco Board) (See General Limitation #9)

-285 psf (for High Density Wood Fiberboard) (See General Limitation #9)

-510 psf (for Dens Deck) (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type A(3):** All layers of insulation adhered with approved asphalt to adhered anchor sheets. Membranes

subsequently adhered to insulation.

All General and System limitations apply.

**Anchor Sheet:** Elastoflex SA V self-adhered on primed concrete deck followed by one ply of Polyflex or

Polybond torch applied.

One or more layers of any of the following insulations:

| Base Insulation Layer                           | <b>Insulation Fasteners</b>              | <b>Fastener</b>                                  |
|---|--|--|
|   | <u>(Table 3)</u>                         | Density/ft <sup>2</sup>                          |
| Any approved Polyisocyanurate listed in Table 2 |  |  |
| Minimum 1.5" thick                              | N/A                                      | N/A  |
| Top Insulation Layer (Optional)                 | <u>Insulation Fasteners</u><br>(Table 3) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
| DensDeck, DensDeck Prime                        |  |  |
| Minimum 1/4" thick                              | N/A                                      | N/A  |
| Approved High Density Wood Fiberboard           |  |  |
| Minimum ½" thick                                | N/A                                      | N/A  |
| FescoBoard                                      |  |  |
| Minimum ¾" thick                                | N/A                                      | N/A  |

Note: Concrete deck shall be primed with PG100 Asphalt Primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Elastobase adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Polyflex, Polybond torch

applied or one or more plies of Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

Polybond, Polybond G, torch applied. Or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.



NOA No.: 13-0416.04 Expiration Date: 07/13/18 Approval Date: 07/18/13 Page 13 of 31 **Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -280 psf (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(4): All layers of insulation adhered with approved adhesive. Membranes subsequently adhered to

insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional)                     | <u>Insulation Fasteners</u><br>(Table 3) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
|--|--|--|
| AC Foam-II, H-Shield                                 |  |  |
| Minimum 2" thick                                     | N/A                                      | N/A  |
| Top Insulation Layer                                 | <u>Insulation Fasteners</u><br>(Table 3) | Fastener<br>Density/ft <sup>2</sup>              |
| SECUROCK Gypsum-Fiber Roof Board<br>Minimum ¼" thick | N/A                                      | N/A  |

Note: All insulation shall be adhered with Insta-Stick, OlyBond 500, One Step Foamable Insulation Adhesive, Pourable Adhesive or TITESET in beads/ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Polyflex, Polybond, Elastoflex

S6 or Elastoflex V adhered in a full mopping of approved asphalt applied within the EVT range

and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Polyflex, Polybond, Elastoflex

S6, Elastoflex V or Elastoflex V 2.5 adhered in a full mopping of approved asphalt applied

within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR, Polybond G,

Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG.

Elastoshield TSG FR, torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -442.5 psf (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(5): All layers of insulation adhered with approved asphalt or adhesive. Membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional)         | Insulation Fasteners (Table 3)           | Fastener<br>Density/ft <sup>2</sup> |
|--|--|-------------------------------------|
| AC Foam-II, H-Shield<br>Minimum 2" thick | N/A                                      | N/A                                 |
| Top Insulation Layer                     | <u>Insulation Fasteners</u><br>(Table 3) | Fastener<br>Density/ft <sup>2</sup> |
| SECUROCK Gypsum-Fiber Roof Board         |  |                                     |

Minimum 1/4" thick N/A N/A

Note: All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> or OlyBond at a rate of 1 gal/100ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Elastoflex S6 or Elastoflex V

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Elastoflex S6, Elastoflex V

adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-

40 lbs./sa.

One ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, **Membrane:** 

Elastoshield TSG, Elastoshield TSG FR hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -495.0 psf (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type A(6): All layers of insulation adhered with approved asphalt or adhesive. Membranes subsequently

adhered to insulation.

# All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional)                     | <u>Insulation Fasteners</u><br>( <u>Table 3</u> ) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
|--|---|--|
| AC Foam II, H-Shield                                 |   |  |
| Minimum 2" thick                                     | N/A   | N/A  |
| Top Insulation Layer                                 | <u>Insulation Fasteners</u><br>(Table 3)          | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
| SECUROCK Gypsum-Fiber Roof Board<br>Minimum ¼" thick | N/A   | N/A  |

Note: All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> or OlyBond at a rate of 1 gal/100ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Base Sheet:** One or more plies of Polyflex, Polybond torch applied.

Membrane: One ply of Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR, Polybond G

torch applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -536.5 psf (See General Limitation #9)



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**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type B:** Base layer of insulation mechanically fastened, top layer adhered with approved asphalt.

Membranes subsequently adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer          | <b>Insulation Fasteners</b> | <u>Fastener</u>         |
|--------------------------------|-----------------------------|-------------------------|
|                                | <u>(Table 3)</u>            | Density/ft <sup>2</sup> |
| ENRGY 3, H-Shield or POLYTHERM |                             |                         |
| Minimum 1.5" thick             | 10                          | 1:1.33 ft <sup>2</sup>  |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See RAS 117 for fastening details.

| <b>Top Insulation Layer</b>                               | <u>Insulation Fasteners</u><br>( <u>Table 3</u> ) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
|---|---|--|
| Approved High Density Wood Fiberboard<br>Minimum ½" thick | N/A   | N/A  |
| FescoBoard<br>Minimum ¾" thick                            | N/A   | N/A  |

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Elastobase adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Polyflex, Polybond torch

applied or one or more plies of Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

Polybond, Polybond G, torch applied. Or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt.



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coating or required fire classification.

**Maximum Design** 

-90 psf; (See general limitation #7.) **Pressure:** 



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type C(1): All layers of insulation are mechanically attached to roof deck. Membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

 Insulation Layer
 Insulation Fasteners
 Fastener

 (Table 3)
 Density/ft²

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Base Sheet:** One or more plies of Elastoflex SA V

Ply Sheet: (Optional) One or more plies of Polyflex, Polybond torch applied or one or more plies of

Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered to the base sheet in a full mopping of approved asphalt applied within the

4 or 10

EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

Polybond, Polybond G, torch applied or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

Minimum 1.5" thick

**Pressure:** -82.5 psf; (See General limitation #7.)



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1:1.33 ft<sup>2</sup>

**Deck Description:** 2500 psi structural concrete or concrete plank

System Type C(2): All layers of insulation are mechanically attached to roof deck. Membranes subsequently

adhered to insulation.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer                           | Insulation Fasteners | <u>Fastener</u>         |
|---|----------------------|-------------------------|
|   | <u>(Table 3)</u>     | Density/ft <sup>2</sup> |
| Any approved Polyisocyanurate listed in Table 2 |                      |                         |
| Minimum 1.5" thick                              | N/A                  | N/A                     |

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

| <b>Top Insulation Layer</b>                            | <b>Insulation Fasteners</b> | <u>Fastener</u>         |
|--|-----------------------------|-------------------------|
|  | <u>(Table 3)</u>            | Density/ft <sup>2</sup> |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof B | oard                        |                         |
| Minimum ¼" thick                                       | 10                          | 1:1.33 ft <sup>2</sup>  |
| Annuaried High Dongitz Wood Eibanhoond                 |                             |                         |
| Approved High Density Wood Fiberboard                  |                             |                         |
| Minimum ½" thick                                       | 10                          | 1:1.33 ft <sup>2</sup>  |

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Elastobase adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Polyflex, Polybond torch

> applied or one or more plies of Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered to the insulation in a full mopping of

approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

> Polybond, Polybond G, torch applied or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.

(Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired **Surfacing:** 

coating or required fire classification.

**Maximum Design** 

-82.5 psf; (See General limitation #7.) **Pressure:** 



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type C(3): All layers of insulation are mechanically attached to roof deck. Membranes subsequently

adhered to insulation.

## All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional)                                      | Insulation Fasteners (Table 3)    | Fastener<br>Density/ft <sup>2</sup>              |
|---|-----------------------------------|--|
| Any approved Polyisocyanurate listed in Table 2<br>Minimum 1.5" thick | N/A                               | N/A  |
| Top Insulation Layer  | Insulation Fasteners<br>(Table 3) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
| SECUROCK Gypsum-Fiber Roof Board<br>Minimum 1/2" thick                | 1 (#14) or 3(#14)                 | 1:1.78 ft <sup>2</sup>                           |

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density.

**Base Sheet:** (Optional if using ply sheet in hot asphalt) One or more plies of Polyflex, Polybond, Elastoflex

S6 or Elastoflex V adhered in a full mopping of approved asphalt applied within the EVT range

and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional if using base sheet in hot asphalt) One or more plies of Polyflex, Polybond, Elastoflex

S6 or Elastoflex V adhered in a full mopping of approved asphalt applied within the EVT range

and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR, Polybond G,

Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG,

Elastoshield TSG FR torch or hot asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -75 psf; (See general limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently **System Type D(1):** 

mechanically fastened through insulation to the roof deck.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| <u>Insulation Layer</u>                      | <u>Insulation Fasteners</u><br>(Table 3) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
|--|--|--|
| H-Shield, POLYTHERM, POLYTHERM Comp          | osite, ACFoam-II, ACFoam-III, ENRGY 3    |  |
| Minimum 1.5" thick                           | N/A                                      | N/A  |
| FescoBoard                                   |  |  |
| Minimum 3/4" thick                           | N/A                                      | N/A  |
| Approved High Density Fiberboard, Structodek | High Density Fiberboard Roof Insulation  |  |
| Minimum 1" thick                             | N/A                                      | N/A  |

Note: Top layer shall have preliminary attachment, prior to installation of the base sheet, at an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density.

**Base Sheet:** One ply of Polybond, Polyflex mechanically fastened to the deck as described below:

(Polybond or Polyflex only) Attach base sheet using Polygrip Fastener #14 or Dekfast 14 **Fastening #1:** 

fasteners and approved plates spaced 12" o.c. in a minimum 6" wide side lap. The side lap is

either torch or hot air welded closed.

(Maximum Design Pressure -82.5 psf - See General Limitation #7.)

**Fastening #2:** (Polyflex only) Attach base sheet using SFS Dekfast #15 HS fasteners and Dekfast Isofast IF-

2.375-AT Plates spaced 12" o.c. in a 5" heat welded side lap.

(Maximum Design Pressure -82.5 psf - See General Limitation #9.)

**Plv Sheet:** None.

One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR, **Membrane:** 

Polybond, Polybond G, torch applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** See Fastening Options above



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type D(2): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently

mechanically fastened through insulation to the roof deck.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer  | Insulation Fasteners (Table 3)    | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
|--|-----------------------------------|--|
| Any approved Polyisocyanurate listed in Table 2<br>Minimum 1" thick        | N/A                               | N/A  |
| Top Insulation Layer (Optional)  | Insulation Fasteners<br>(Table 3) | Fastener<br>Density/ft <sup>2</sup>              |
| Fesco Board<br>Minimum 3/4" thick  | N/A                               | N/A  |
| Approved High Density Wood Fiber<br>Minimum ½" thick                       | N/A                               | N/A  |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Boar Minimum ¼" thick | d<br>N/A                          | N/A  |

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Base Sheet:** One ply of Elastobase or Elastobase P fastened to the deck as described below:

**Fastening:** Attach base sheet using OMG #14 Roofgrip or #15 Roofgrip Fasteners and Flat Bottom Metal

Plates spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center

of the sheet.

**Ply Sheet:** (Optional) One or more plies of Polyflex, Polybond torch applied or one or more plies of

Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a

rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

Polybond, Polybond G, torch applied or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.



NOA No.: 13-0416.04 Expiration Date: 07/13/18 Approval Date: 07/18/13 Page 24 of 31 **Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -60 psf; (See General limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type D(3): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently

mechanically fastened through insulation to the roof deck.

## All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer                                  | Insulation Fasteners<br>(Table 3) | Fastener<br>Density/ft <sup>2</sup> |
|--|-----------------------------------|-------------------------------------|
| Any approved Polyisocyanurate listed in Table 2        | <u>(= m== = )</u>                 | <u>=</u>                            |
| Minimum 1" thick                                       | N/A                               | N/A                                 |
| Top Insulation Layer (Optional)                        | Insulation Fasteners (Table 3)    | Fastener<br>Density/ft <sup>2</sup> |
| FescoBoard   |                                   |                                     |
| Minimum ¾" thick                                       | N/A                               | N/A                                 |
| Approved High Density Wood Fiber                       |                                   |                                     |
| Minimum ½" thick                                       | N/A                               | N/A                                 |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof B | Board                             |                                     |
| Minimum 1/4" thick                                     | N/A                               | N/A                                 |

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Base Sheet:** One ply of Polybond, Polyflex or Elastoshield TSG fastened to the deck as described below:

**Fastening:** Attach base sheet using SFS Dekfast #14 Fasteners and Dekfast Galvalume Steel Hex plate or

OMG #14 Roofgrip fasteners with Flat Bottom Metal Plates spaced 12" o.c. in a 4" lap and 18"

o.c. in two equally spaced staggered rows in the center of the sheet.

**Ply Sheet:** (Optional) One or more plies of Polyflex, Polybond, torch applied or one or more plies of

Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a

rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

Polybond, Polybond G, torch applied or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.



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coating or required fire classification.

**Maximum Design** 

**Pressure:** -112.5 psf; (See General limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

System Type D(4): All insulation is loosed laid with preliminary attachment to deck. Base sheet is subsequently

mechanically fastened through insulation to the roof deck.

#### All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer                                  | <b>Insulation Fasteners</b>       | <b>Fastener</b>                                  |
|--|-----------------------------------|--|
|  | <u>(Table 3)</u>                  | Density/ft <sup>2</sup>                          |
| Any approved Polyisocyanurate listed in Table 2        |                                   |  |
| Minimum 1" thick                                       | N/A                               | N/A  |
| Top Insulation Layer (Optional)                        | Insulation Fasteners<br>(Table 3) | <u>Fastener</u><br><u>Density/ft<sup>2</sup></u> |
| Fesco Board  |                                   |  |
| Minimum <sup>3</sup> / <sub>4</sub> " thick            | N/A                               | N/A  |
| Approved High Density Wood Fiberboard                  |                                   |  |
| Minimum ½" thick                                       | N/A                               | N/A  |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof B | oard                              |  |
| Minimum 1/4" thick                                     | N/A                               | N/A  |

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Base Sheet:** One ply of Polyglass base fastened to the deck as described below:

**Fastening:** Attach base sheet using SFS Dekfast #14 or #15 HS Fasteners and Dekfast Galvalume Steel Hex

plate or Trufast #14 HD or Trufast #15 EHD Fasteners with Trufast 3" Metal Insulation Plates spaced 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center of the

sheet.

Ply Sheet: (Optional) One or more plies of Polyflex, Polybond, torch applied or one or more plies of

Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 or one or more plies of Type IV or VI ply sheet adhered in full mopping of approved asphalt applied within the EVT range and at a

rate of 20-40 lbs./sq.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

Polybond, Polybond G, torch applied or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.



NOA No.: 13-0416.04 Expiration Date: 07/13/18 Approval Date: 07/18/13 Page 28 of 31 **Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -52.5 psf; (See General limitation #7.)



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**Deck Description:** 2500 psi structural concrete or concrete plank

**System Type F(1):** Membranes adhered to roof deck

All General and System Limitations apply.

Note: Concrete deck shall be primed with PG100 Asphalt Primer and allowed to dry prior to application of base

sheet.

**Base Sheet:** (Optional) One or more plies of Elastobase or ASTM D4601 Type II base sheet adhered in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional) One or more plies of Polyflex, Polybond torch applied or one or more plies of

Elastobase, Elastoflex S6, Elastoflex V or Elastoflex V 2.5 applied in hot asphalt or one or more

plies of ASTM D2178 Type IV or VI ply sheet adhered in hot asphalt.

**Membrane:** One ply of Polyflex, Polyflex G, Polyflex G FR, Polyfresko Torch, Polyfresko Torch FR,

Polybond, Polybond G, torch applied or one ply of Elastoflex S6 G, Elastoflex S6 G FR, Polyfresko Mop, Polyfresko Mop FR, Elastoshield TSG or Elastoshield TSG FR torch or hot

asphalt applied.

**Surfacing:** (Optional) Install one of the approved surfacing products listed in Table 4 to obtain desired

coating or required fire classification.

**Maximum Design** 

**Pressure:** -622.5 psf; (See General Limitation #9.)



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#### **CONCRETE DECK SYSTEM LIMITATIONS:**

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

#### **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
  - Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)

END OF THIS ACCEPTANCE



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